

## **BASELINE REPORT**

### **Of the Survey on Child Survival Knowledge, Practice and Vaccination Coverage**

**in**

**Ouémé Department (Rural Areas)  
Benin**

**Food Assisted Child Survival Project  
*MSPSCF/Catholic Relief Services***

**Final Version**

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Fortuné Agboton, Project Manager, CRS/Bénin

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**List of Acronyms**

ABEL	Beninese Association of Local Language Writers
CHP	Community Health Promoters
CPS	<i>Centre de Promotion Sociale</i> -- Social Promotion Center
CS	Child Survival
CSSP	Child Survival Support Program attached to Johns Hopkins University
DAP	Detailed Activity Plan
DAS	<i>Direction des Affaires Sociales</i> -- Department of Social Affairs
DHS	Demographic Health Survey
DPP	Detailed Program Plan -- Multi-year program plan, currently DAP
DPS	<i>Direction de la Protection Sociale</i> -- Department of Social Protection
FACS	Food-Assisted Child Survival Program
FHA/FFP	Food and Humanitarian Assistance/Office of Food for Peace (FHA/FFP)
FNP	Food and Nutrition Program run by the FNP Unit -- a joint DPS/CRS organization
EPI	Expanded Programme on Immunization
IGA	Income Generating Activity (small or micro-enterprise).
IMR	Infant Mortality Rate
KPC	Knowledge, Practice, (vaccination) Coverage Survey developed by Johns Hopkins University for measuring the impact of child survival projects.
MCH	Maternal Child Health Program
MIS	Management Information System
MSPSCF	<i>Ministère de la Santé, de la Protection Sociale, et de la Condition Féminine</i> -- Ministry of Health, Social Protection and Promotion of Women's Condition
NGO	Non-governmental Organization
ORT	Oral Rehydration Therapy

TOST        Training of Survey Trainers of the KPC Survey

WHO        World Health Organization

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## EXECUTIVE SUMMARY

Since 1982, the Government of Benin in partnership with CRS/Benin has carried out a Maternal Child Health (MCH) Program for which the principal objective has been the reduction of malnutrition rates for children aged 0 to 24 months of age. In the course of previous years, this program has undergone a number of programmatic revisions designed to improve the program strategy and estimate impact.

Despite the encouraging results and continuous improvement in program activities, two principal constraints remain. On the one hand, it is necessary to implement an advanced strategy to: 1) improve targeting of beneficiaries so that the most needy are participating, and 2) ensure the sustainability of program activities such that the beneficiaries themselves progressively take over program responsibilities. On the other hand, the donor community is unanimous in its desire to have concrete results showing improved impact in order to justify the resources given to such programs worldwide. This requires not only the identification of measurable indicators but also the development of new indicators that are inexpensive enough to be useful to PVOs and accurate enough to show progress.

It is primarily for these two reasons that:

First, MSPSCF and CRS/Benin designed the community based Food Assisted Child Survival (FACS) Program to have the objectives of improved targeting of food insecure zones and the training of local populations to manage the program and seek solutions to their health problems.

Second, the two counterparts have decided to use the KPC survey as a principle means for collecting management and impact data about vaccination coverage and the health knowledge and practices of mothers in key child survival areas.

The Food Assisted Child Survival (FACS) program is currently being implemented only in the Ouémé Department, while the traditional MCH program continues in the country's other five departments. CRS/Benin in cooperation with the MSPSCF received a five year Title II and Farm Bill grant from the AID Bureau for Food and Humanitarian Assistance/Office of Food for Peace (FHA/FFP) to progressively implement the new approach. The project will serve an estimated 42,500 beneficiaries on a monthly basis by implementing CS activities from October 1, 1996 to September 30, 2000, in local communities throughout the country's six departments.

In order to gather baseline data for the new program, a KPC survey was conducted from 18 February 1997 to 23 March 1997 in 78 communities of the Food Assisted Child Survival Program in the Ouémé Department. This work was funded by USAID/Benin and Catholic Relief Services/Benin provided technical assistance. Additional support was provided by the Food and Nutrition Program (FNP) Unit and the Beninese Association of Local Language Writers (ABEL).

The survey questionnaire was initially designed at the Department of International Health and Hygiene at Johns Hopkins University in Baltimore, MD, in consultation with CRS. The

questionnaire was then later refined in Benin. The final French version of the survey was then translated into the six local languages spoken in the Ouémé Department. The survey methodology recommends that project staff and counterparts be included in the Core Team so as to empower them to conduct future surveys. Thus, MSPSCF/CRS selected and contributed staff to be members of the core team, who participated in a four day training program in conducting a KPC Survey. This group employed a 30 cluster sample survey based on the WHO methodology. Eight teams of four interviewers and one supervisor conducted the survey. Each cluster included 10 household interviews of mothers with children less than 2 years of age. A total of 300 households were interviewed.

The objectives of the survey were: 1) to obtain information or baseline data on the knowledge and practices of the mothers of children under two years of age in the Year 1 of the FACS project areas concerning child survival activities, 2) to identify the factors linked to childhood illness which most commonly found at the household level, and 3) to build in-country survey capacity at the MSPSCF level. This KPC Survey therefore provides accurate information for the development of improved project objectives and program activities. The objectives of the survey were accomplished within four weeks. The CRS/Benin and MSPSCF field team discussed the results extensively in order to evaluate project plans, as outlined in the proposal, and to provide background information for development of any future Detailed Activity Plans (DAP).

Major findings include: Only 4.7% of all women with a children aged 0-3 months practiced exclusive breastfeeding. 21.3% of mothers surveyed did not know that in order to stimulate the production of breastmilk, it was important to initiate breastfeeding as soon as possible after birth. The survey also found that 31% of children had diarrhea in the 15 days preceding the survey, and of these children, slightly more than half of mothers (52.7%) treated the infant's recent diarrhea with ORT (SSS, ORS, or home fluids) and 25.3% gave more fluids than usual. 87.4% of children between 12 and 23 months of age have access to immunizations and of these children, 59.8% of the children were completely vaccinated (EPI), including the measles vaccine. The drop-out rate for the DTP series were 21%. Only 38% of women surveyed know that the Tetanus Toxoid vaccine during pregnancy protected mother and child and 71.3% knew that a pregnant woman needed two TT shots to protect the mother and child. Of all mothers surveyed, 92% cannot read.

Based on these findings, MSPSCF and CRS revised the five-year FACS project objectives during the results discussion and feed-back sessions. They also defined necessary strategies for achieving the desired results. The revised objectives and recommendations can be found in the section Discussions and Recommendations , which begins on page 30.

## I. INTRODUCTION

### A. Background

CRS/Benin, a PVO with its headquarters in Baltimore, MD, has been implementing a national social sector program in Benin since 1958. This program has been jointly implemented with different ministries who, throughout the years, have been in charge of the agency for social affairs, CRS' principal counterpart. The project receives Title II resources from the American government through an AID grant from the Bureau for Food and Humanitarian Assistance, Office of Food for Peace (BHA/FFP). The early basis for the program was to assist those at risk for food insecurity and its primary activity was the distribution of imported foods from the United States. The U.S. public law No. 480 outlines the conditions under which the such foods are distributed by the USAID, while the BHA/FFP concerns itself principally with logistical management of these foods.

Beginning in 1982, CRS/Benin decided, in consultation with its Benin government counterpart, to use these resources to reinforce a social development program (**The Food and Nutrition Program**) instead of outright social assistance for which the impact was difficult to estimate. The new national program, known as the Food and Nutrition Program (**PAN**), is being executed in 95 Mother Child Health Centers (MCH Centers) spread throughout Benin's six departments. The large majority of these centers (77) are government run (**MOH--68 centers; Ministry of Rural Development--9 centers**) while the rest are either Church run (**15 Centers**) or managed by Community Organizations (**3 Centers**). These centers are essentially located in the administrative seat of the subprefectures. Thus, the target group for the program, namely, the poorest populations, often have to travel long distances to take advantage of the services offered by the social centers.

Nevertheless, approximately 42,000 children aged 0 to 24 months, participate on a regular monthly basis in the program's activities of growth monitoring and follow-up of the vaccination schedule. The program also conducts health information, education, and communication (IEC) sessions for the children's mothers before the growth monitoring sessions. To provide incentive for the mothers to come regularly, a Title II food ration accompanies the growth monitoring and education activities. In addition, CRS/Benin has initiated over the years a project of **income generating activities** (IGA) for the mothers who wish to start a small commerce activity or micro-enterprise.

Despite the positive results of the previous center-based Maternal and Child Health program, past evaluations have shown the following insufficiencies:

- National program coverage remains low (around 7 % of the target population)
- The manner in which persons are selected for the program does not necessarily guarantee that the true target population is being reached. Given the location of existing centers, it is not surprising to find that the many of the mothers come from urban and semi-urban areas.
- Community involvement in the management of the program remains low
- Malnutrition rates for children between 0 and 2 years of age has not significantly decreased from an average of 35% despite the many years in which the program has existed
- Many of the messages used to educate and sensitize the mothers following the growth



monitoring sessions are not put into practice in the households. Reasons for this include difficulty in purchasing necessary foods and lack of education of other family members who care for the children. In this respect, existing efforts to address the lack of household income have not been sufficient to address such problems.

- The association and support of other family members (husbands, aunts, grandmothers, and older children) besides the mothers themselves is lacking and insufficient. Their support would encourage the mothers to implement important practices in the household.

Given these insufficiencies, a community based Child Survival (CS) Program has been chosen as the new, preferred strategy. This approach provides an integrated health program that targets specific communities instead of particular individuals, and seeks to reinforce community capacity to solve their own health problems. With a well elaborated program of activities, sufficient resources, and education messages targeted to the needs of each community according to the strengths and weaknesses revealed by the KPC, the CS program will be capable of surmounting the aforementioned insufficiencies of the old center-based MCH program.

For the new strategy to succeed, it is critical to identify a number of measurable progress indicators, many of which are part of the KPC survey, and determine realistic objectives given the project's time frame. The KPC methodology was developed by the PVO **Child Survival Support Program (CSSP)** in Baltimore, MD. The KPC is an essential tool that allows project managers and other project staff to rapidly measure progress indicators every four or five years. The KPC methodology, having been accepted by donor agencies, is therefore an indispensable tool for estimating the impact of the new **community based FACS program** in Benin. The first KPC survey for the Community based approach was therefore conducted in the first department to implement the new program, the Ouémé Department. Moreover, the results presented herein constitute the baseline data against which a final KPC will estimate change and also assist the project to set achievable objectives for the years to come.

As a result of this survey, MSPSCF and CRS/Benin have determined a number of target messages for IEC activities for the community based Child Survival Program. These key messages can be grouped under four subheadings all of which have been extensively researched by UNICEF and World Health Organization (WHO), in their book, Facts for Life. The subheadings are as follows:

- **Vaccinations** - Principal project activities attempt to sensitize mothers as to the benefits of vaccinating their children and themselves against tetanus while pregnant. Follow-up checks of the vaccination card also allows the project to verify that the communities' children have completed their vaccination schedule by the age of 12 months.

- **Growth Monitoring** - It is necessary to sensitize the mothers as to the importance of monitoring the children's weight according to age (0 to 24 months) and what each of the weight categories signifies in terms of the child's nutritional status. Mothers also need to experience first hand the benefits of growth monitoring.

- **Breastfeeding/Nutrition** - Similarly, the program attempts to inform mothers about the importance of exclusive breastfeeding for children aged 0 to 4 months, and the quality of

weaning foods to be introduced between 4 and 6 months. Moreover, education messages also address the importance of including specific foods to address specific local nutritional deficiencies.

- **Treatment of Diarrhea** - Mothers are also given information about appropriate practices when the child has diarrhea; how to treat it; and when it has become serious enough to warrant medical attention.

The KPC survey permits project staff to collect precise baseline data on the vaccination coverage, and level of knowledge, and actual practice of mothers who live in the 78 project communities of the FACS program. The ideal indicator, Infant mortality rates (IMR), are not available nor expected for the project communities. However, a recent Demographic Health Survey (DHS) was conducted in Benin in 1996 and the preliminary results are available for national and departmental jurisdictions. The 1996 DHS found that 94 children die before their first birthday per 1,000 live births.<sup>1</sup> Information from MSPSCF/CRS maternal child health program indicates that diarrhea, malaria and malnutrition are the most serious threats to child survival in Benin. Program information also suggests that the vaccination coverage rate varies widely from one region to another. This information has also been supported by the results of the DHS. According to the Benin DHS, departmental vaccination coverage rates varied from 40.6 % for the Borgou Department to 70.8% for the Ouémé Department. It also found that nationally only 55.6% of children aged 12 to 23 months have received all the vaccinations of the Expanded Vaccination Programme and that 64.3% of children aged 12 to 23 received their vaccination against the measles. In addition, statistics produced by CRS/Benin indicate that the malnutrition rate for children age 0 to 3 years of age participating in the FNP varies between 31% and 37%, and that the Ouémé Department consistently has one of the nation's highest rates.

AID currently requests that all PVOs with new FHA/PVC Child Survival grants conduct a 30-cluster baseline KPC survey using a standardized questionnaire developed by JHU. This questionnaire was developed to collect information about mothers' child survival knowledge and practices. As part of this process, two trainers who received the Training of Survey Trainers (TOST) from the CSSP of JHU, Fortuné Agboton and Paul Macek, were selected to: (1) explain the purpose and organization of the standard questionnaire, (2) train the survey supervisors and the surveyors to use the WHO household sampling method, and (3) train the Core Team for training of supervisors and interviewers and oversee the manual tabulation of results, analysis of the results, and final report writing.

#### B. Objectives of the Survey

The method of choice for this kind of survey is a 30 cluster sampling technique of 10 individuals per cluster on the basis of a random selection. The study population consists of mothers of the children under the age of 24 months living in any of the 78 target communities of the Ouémé Department. By restricting the sample to mothers of children less than 24

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<sup>1</sup>MPREPE, INSAE, et Macro International Inc., Enquête Démographique et de Santé au Benin 1996: Rapport Préliminaire, Septembre 1996.

months of age, repeat surveys can ascertain the project's ability to reach children born during the life of the project, and establish whether the project was successful in communicating to the mothers, through community health promoters (CHPs), certain action messages about key CS interventions.

A population based sample survey is one method of obtaining rates; i.e. data relative to denominators, which are an important part of project's health information system. The data collected from a sample survey can be used for project/activity design, management information and evaluation purposes.

The primary objectives of the survey are to provide MSPSCF and CRS/Benin with information about the following:

- 1) Changing behavior and practices of mothers of children under two years of age by:
  - < suggesting more effective means for delivering messages
  - < highlighting major threats to infant, child and maternal health due to poor or insufficient knowledge on the behalf of mothers
  - < highlighting major threats to infant, child, and maternal health due to inappropriate health practices of mothers and a non-supportive environment for the implementation of key messages
  - < encouraging the treatment of diarrheal diseases;
  - < experiencing the value of growth monitoring;
  - < emphasizing appropriate nutrition/weaning practices and proper nutrition for target children
- 2) Target groups for health education action messages
- 3) For children aged 12-23 months: the coverage rates of BCG, DTP3 + Polio 3, measles vaccine and drop out rates between series antigens.

To perform the analysis, the methodology recommends that project staff use a certain number of key child survival indicators. These indicators are determined by the standard formula for calculating a given indicator. The formulation of these indicators is also determined by a number of key health messages from organizations such as WHO, UNICEF, UNESCO and FNUAP in collaboration with 165 other medical organizations. These messages on knowledge and practices have already been developed in Facts for Life, produced by the already mentioned organizations. The survey establishes estimates of child survival knowledge and assesses the extent of practices (K & P) of the project's primary health care interventions.

C. Schedule of Activities in Benin in February/March 1997

***FACS PROGRAM Ouémé Department***

***Wednesday, 6 November 1996***      *First Meeting of Core Team Members and  
Presentation of KPC Objectives*

***Wednesday, 13 November 1996***      *Second Meeting to prepare for*                      *the KCP*

***From Tuesday, 18 February  
to Friday, 21 February 1997***                      *Core Team Training in Porto-Novo*

***Monday, 24 February 1997*** *Training of Supervisors by the Core Team in Pobé.*

***From Tuesday, 25 to  
Friday, 28 February 1997***                      *Training of Interviewers and Supervisors by Core  
selection of interviewers*                      *Team and field test of the questionnaire. Final*

***Sunday, 2 March 1997***                      *Travel to the first survey sites for all survey teams.*

***From Monday, 3 March  
to Wednesday, 5 March 1997***                      *Conduct of the survey.*

***Wednesday, 5 March 1997***                      *Deposition of the 300 Surveys in Pobé*

***From Thursday, 6 March  
to Friday, 7 March 1997***                      *Manual tabulation of Survey results by Core Team,  
Supervisors and Interviewers.*

***From Monday 10, March to  
Tuesday, 11 March 1997***                      *Group discussion and analysis of results*

***From Wednesday 12 March  
to 14 March 1997***                      *Writing of Draft Report*

***Tuesday 18 March 1997***                      *Presentation of Results*

***April/May 1997***                      *Writing of Final Report and translation into English*

## II. METHODOLOGY

### A. The Questionnaire

The questionnaire contains 40 questions which were selected from the standard questionnaire, developed by the staff at Johns Hopkins University's PVO Child Survival Support Project (CSSP). This questionnaire was designed to collect health information from mothers of children under 24 months of age. The Core Team decided not to include any questions that did not come directly from the standardized questionnaire.

The first two questions ask about the age of the respondent (mother) and her youngest child under 24 months of age. Questions 3, 4, and 5 collect data regarding mother's literacy, employment, and who looks after the child when the mother is away from home. Questions 7 - 13 deal with the mother's practice and knowledge in relation to breast-feeding and other feeding practices. Questions 14 and 15 confirm the child's attendance at growth monitoring sessions. Questions 16 - 25 refer to the mother's responses to diarrheal disease and care for the child with diarrhea. Questions 26 - 31 determine the immunization status of the child against infectious diseases and the mother's knowledge of the vaccination schedule. Questions 32 - 37 concern pre-natal care during pregnancy.

In addition to these, CRS/Benin's principle counterpart, the MSPSCF, requested that two questions, 38 and 39, be included to determine the frequency of respiratory illness and where advice or treatment was sought. The results of the tabulation of questions 38 and 39 have been presented in this report. However, respiratory illness is not an area in which the CRS/Benin program intervenes. The final question, number 40, was included as an exit question to end the interview on a good note since all mothers can respond to this question and to obtain information on what type of medical assistance they received during the child's birth.

The questionnaire was originally written in English and translated into French for the Core Team, which made additional modifications in order to customize the questionnaire for the CRS/Benin project area. The Benin questionnaire was then translated into the six predominant languages of the Ouémé Department--Fon, Wémé, Goun, Nago, Holli, and Tori and further adapted during the training and pretest in the field.

### B. Determination of Sample Size

Sample sizes were calculated with the following formula:

$$n = z^2(pq)/d^2$$

where  $n$  = sample size;  
 $z$  = statistical certainty chosen;  
 $p$  = estimated prevalence/coverage rate/level to be investigated;  
 $q$  =  $1 - p$ ; and  
 $d$  = precision desired.

The value of **p** was defined by the coverage rate that requires the largest sample size (**p** = .5). The value **d** depends on the precision, or margin of error, desired (in this case **d** = .1). The statistical certainty was chosen to be 95% (**z** = 1.96). Given the above values, the following sample size (**n**) needed was determined to be:

$$n = (1.96 \times 1.96)(0.5 \times 0.5)/(0.1 \times 0.1)$$

$$n = (3.84)(0.25)/0.01$$

$$n = 96$$

It takes much time to randomly select an identified individual from the survey population, and then perform this selection 96 times to identify a sample of **n = 96**. Time can be saved by doing a 30 cluster sample survey in which several individuals within each cluster are selected to reach the required sample size. However, in order to compensate for the bias which enters the survey from interviewing persons in clusters, rather than as randomly selected individuals, experience has shown that a minimum sample of 210 (7 per cluster) should be used given the values of **p**, **d**, and **z** above (Henderson, et. al., 1982).

In general, when using a 30 cluster sample survey, the sample size used should be approximately double the value **n**, to take into account the design effect or clustering of population characteristics when: **n** = (**z x z**)(**pq**)/(**d x d**). In this case, a sample size of 300 (10 per cluster) was selected so as to ensure that sub-samples would be large enough to obtain useful management information. This is the case, for instance, when mothers are asked the series of questions regarding the treatment of diarrhea, namely, questions 17 to 22.

The estimates of confidence limits for the survey results were calculated using the following formula:

$$\text{95\% confidence limit} = p \pm z(\text{square root of } \{pq/n\})$$

where: **p** = proportion in population found from survey; **z** = statistical certainty chosen (if 95% certainty chosen, then **z** = 1.96); **q** = 1 - **p**; and **n** = sample size.

EXAMPLE: If the proportion of children in the survey who were completely and correctly immunized is 37% and **n** = 297:

$$\begin{aligned} \text{95\% confidence limit} &= 0.37 \pm 1.96(\text{square root of } \{0.37 \times .63/297\}) \\ &(\text{z} = 1.96) \end{aligned}$$

$$\text{Confidence limit} = 1.96 = 0.37 \pm 0.03 \text{ (or, 34\% to 40\%)}$$

In other words, we are 95% sure that the actual proportion of children in the survey area who are completely and correctly immunized varies between 34% and 40%.

### **C. Selection of the Sample**

The sample consisted of 300 women with children 0-23 months of age randomly selected in the 78 target communities of the FACS Program of the Ouémé Department. By restricting the sample to mothers of children less than 24 months of age, repeat surveys can ascertain the project's ability to reach children born during the life of the project, and establish whether the project was successful in communicating to mothers certain action messages about key child survival indicators. Ten women were selected in each of 30 randomly selected cluster sites following the process described in The EPI Coverage Survey training manual (WHO, Geneva, Oct. 1988). (See **Annex B. Page 42**)

Once the survey teams reached the designated *cluster site*, the initial household surveyed within the cluster, and the direction from the initial household, were randomly selected.

### **D. Training of Supervisors and Interviewers**

Prior to the training of supervisors and interviewers, the Core Team received a four-day training of survey trainers for the KPC survey methodology, given by the CRS/Benin Survey Trainers in Porto-Novo. The Core Team was exclusively made up of health professionals of CRS/Benin's counterpart, MSPSCF, and the staff of the Food and Nutrition Program Unit, a semi-autonomous management structure for the FACS program.

In consultation with the KPC Survey Trainers of CRS/Benin, the Core Team selected **8 supervisors** based on their prior survey experience and preselected **42 interviewers** with the ability to read and write in at least one of the six languages of the 30 cluster sites. The training of supervisors and interviewers took place over the course of four days. The **Beninese Association of Writers of National Languages**, known by its French acronym ABEL, provided the interviewers and carried out the translations.

From 24-28 February 1997, members of the Core Team trained the supervisors and interviewers in Pobé during five days; this training included one day for supervisors only and four days for supervisors and interviewers together to ensure that every participant mastered the survey methodology. Prior to the first day of the training, the CRS/Benin Survey Trainers and the members of the Core Team reviewed the training curriculum and delegated responsibility for various classes that the Core Team was capable of conducting (see annex C).

The Core Team training took place from 18-21 February 1997 at the Hotel Dona in Porto-Novo. The training of supervisors and interviewers took place from 24-28 February 1997 at the Ministry of Rural Development's Training Center in Pobé, which is located in the center of the Ouémé Department. Part of the session held on Friday, 28 February 1997 was used to organize the different survey teams according to assigned clusters so that all 30 sites could be surveyed in the 3 days allotted to complete the 300 questionnaires.

The first training day was dedicated to: survey administration, explanation of the methodology, and understanding the questionnaire. The Core Team conducted the following

training sessions: (a.) purpose and objectives of the survey; (b.) selection of the sample size; (c.) selection of the starting household and survey direction; (d.) community protocols and taboos; and (e.) review of the customized questionnaire with precise explanation of each question.

The second and third days of training concentrated on interviewing techniques. To help familiarize the participants with the questionnaire, the Core Team organized role playing activities that emphasized the role of the supervisors and interviewers. Each participant was also given an opportunity to role play an interview as a supervisor, an interviewer, and an interviewee.

The fourth day of training began with a half-day field test of the survey questionnaire. Two peripheral communities of Pobé and one Health Education Center had been pre-selected for the field test. All supervisors and interviewers utilized this opportunity to practice the various techniques learned during the training. In particular, they practiced interview techniques and random household selection in a real setting. Each group of supervisors and surveyors interviewed on average two mothers of children 0-23 months old during this exercise.

The afternoon of the fourth-day was reserved for finalizing the translation of the questionnaires into the local languages and to review difficulties that were brought to light during the field exercise. In the late afternoon, a manual tabulation exercise followed the session and used the questionnaires that were filled in during the field exercise.

The final day of the training session included: a continuation of the manual tabulation exercise; a brief discussion of the field results; a revision of the previous day's sessions; an evaluation of the whole training; and a session for each of the 8 survey teams to finalize any last minute logistical issues.

### **E. Conduct of the Survey**

The survey was conducted over three consecutive days from March 3 to 5, 1997. Thirty survey areas (communities) were randomly selected from the 78 project communities in the Ouémé Department by the Core Team with the assistance of the CRS/Benin survey trainers. In consideration of the difficulty in reaching these communities, the core team decided to constitute 8 survey teams of four surveyors and one supervisor per team. Of the 48 trained supervisors and surveyors, forty (40) surveyors and supervisors were retained for the actual survey due to their proven interviewing skills. Among the skills desired were the ability to read, write, and speak the local language. In order to ensure that the survey was adequately supervised, a team leader was designated for each team from among the members of the Core Team and the two CRS/Benin survey trainers.

As soon as the teams arrived in a community, the team leader and supervisor were responsible for the random selection of the starting household and survey direction. The method consists of the supervisor randomly selecting the first household to be surveyed using a bottle or some other pointed object. The supervisor then instructs the interviewers to proceed to the first house where they determine whether there is a mother with a child 0-23 months. If the mother has a child within the age range, the interviewer begins the first survey for that cluster site. If there is no child within the age range, the interviewer proceeds to the second house within that cluster. Selection of the second and all consecutive houses within the cluster is done on the basis of the house whose door has the closest proximity to the first house. Since we can be



assured that the first house and direction were randomly selected, then we can be assured that all subsequent houses will be selected randomly. Thus, the interviewers proceed by going from house to house until the 10 interviews are completed. In a number of cases, surveyors made appointments to return to the house if the mother or her health documents were not available.

The supervisors observed at least one complete interview by each surveyor per day. Before leaving the cluster, the supervisor checks the questionnaire for completeness so that, in the case of missing or contradictory information, the mother could be visited again the same day. In addition, supervisors randomly chose one survey among the 10 for each cluster and re-asked the mother a few of the survey questions to ascertain that the mother's responses were correctly noted by the interviewer the first time.

### **Special information used during the survey**

In certain cases, it is very difficult to determine exact ages for many individuals and especially for children who do not have birth certificates. This is particularly true in rural areas of Benin where birth registration is not common and where the exact birth date is rarely required for official documents. To reduce the importance of age misreporting, we limited the tabulations to broad age groups and emphasized determining age correctly according to the month. In most cases, the tabulations are for all children under age 2 (that is, 0-23 months). However, for vaccination indicators, two age groups are particularly important. The first concerns all children from 0 to 11 months, and the second group for children from 12 to 23 months of age. In cases where a child is "about one year old" or "about 2 years old" the interviewers have been trained to probe to try to determine whether the child is past its first (or second) birthday. For the mother's age, surveyors were instructed to try and obtain information concerning three age groupings: less than 19 years old, between 19 and 35 years old, and older than 35 years old. Interviewers developed a list of local events to help determine ages.

In order to ensure consent and confidentiality, a consent form was given to each interviewer to be explained to the mother before commencing with the survey. The consent form advised the potential respondent that she was not obligated to participate in the survey, and that no services would be withheld from her if she chose not to participate. The consent form also assured the mother that all information would be held in confidence, and that the information would be used to help health workers plan health activities. The interviewers were required to obtain the mother's consent before beginning the survey and agree that she had voluntarily agreed to participate before beginning the interview. The consent form also informed the mother of the goal of the survey and names of all persons responsible for the program in her locality.

### **F. Method of Tabulation**

March 6 and 7 were dedicated to manual data tabulation. The Core Team along with the CRS/Benin Survey Trainers constituted 10 groups of 2 persons each for the task. Members of the Core Team selected these individuals from the larger group of supervisors and interviewers.

Manual tabulation was chosen over computerized tabulation due to the fact that this method was more sustainable for the counterpart, which does not always have the use of computers. Furthermore, given that this was a baseline survey and that electricity is not readily available or reliable throughout Benin, the counterpart would need to be able to perform the same

survey in 3 to 4 years and therefore manual tabulation was preferable.

Manual tabulation lasted two days and was performed at the CARDER Training Center in Pobé. The questionnaires were initially organized by cluster site, and each cluster of questionnaires was circulated between each group of tabulators. After a short refresher session on the techniques of manual tabulation, each 2 person group was given one or two questions to tabulate. The tabulators recorded the responses to one question at a time going through each of the 300 survey questionnaires until all the responses to that particular question had been tabulated. One team member read the question's response aloud while the other noted the response on the manual tabulation tables that the Core Team and CRS/Benin Survey Trainers had developed. The tabulators were trained to analyze the results of the questions they had each tabulated and then write out the analysis on the hand tabulation sheets. Members of the core team supervised this exercise.

### **G. Method of Analysis and Discussion of the Results in Groups.**

Following the manual tabulation, the different results were compared with national/departmental objectives of the Ministry of Health, UNICEF, WHO, and especially those of the FACS Program. Using the results of the manual tabulations, members of the core team obtained frequency distributions for each of the questions and cross tabulations for certain key indicators. Furthermore, once the frequency tables and some cross tabulations were finalized, the results of the survey were compared to the national Ministry of Health and UNICEF/WHO's health messages, to CRS/Benin project objectives, and to the results of the 1996 Demographic Health Survey in order to develop the first draft of the survey report.

The KPC survey results and comparisons with other international data were initially discussed by CRS/Benin Survey Trainers and the Core Team, whose members were divided into four small groups according to the project objectives. As noted above, these objectives initially served as the basis for the selection of specific questions for the survey. The areas are:

- Diarrhea Case Management/Treatment**
- Vaccination**
- Maternal Breast-feeding/Infant Nutrition**
- Growth Monitoring of Children 0-23 months of age**
- Maternal Care**

Immunization coverage was analyzed by looking at children aged 12-23 months. By restricting the sample to children of these ages, we can estimate the percentage of children fully immunized within the first year of life. For example, if only 50% of the children aged 12-23 months in the survey are fully immunized, we can then assume that the percentage of children in the project area who receive the full set of immunizations by age 12 months is 50% or less.

The various groups were asked to identify the principal problems raised by the survey results and to determine the chain of causality which led to these problems. The objective of this exercise was to link each effect to its potential cause in order to design appropriate solutions to address the source of the problem. This process allows the analysis to identify different causes and various possible programmatic activities given the available resources and desire for improved program impact. Finally after discussions with relevant authorities, the counterpart, and USAID, this report was drafted to include precise recommendation for

targeting CRS/Benin's **community based child survival program**.

### III. RESULTS

The following answers were given for the 40 questions. Three hundred questionnaires were manually tabulated over a two day period. Moreover, no questionnaires or specific questions were eliminated from the analysis.

#### Identification

1. The mean age reported by mothers surveyed is 25 years. The youngest mother is 16 years old and the oldest mother is 45 years old. 88.3% of mothers surveyed (265 out of 300) are between 18 years and 35 years old. 1.3% of mothers surveyed are younger than 18 years of age and 10.4% are over 35 years.
2. The mean age of children in the survey is 8 months. The two most frequently observed ages are 2 and 4 months with 27 children each. 85 (or 28.4%) of the children in the survey are under four months of age. 71% (213 out of 300) of the children in the survey are under the age of one year, i.e., children 0-11 months. 29% (87 out of 300) of the children in the survey are 12-23 months of age.

**Table 1: Distribution of Children's Ages (months)**

Child's Age	Frequency	Percentage	Cumulative Percentage
0	15	5%	5%
1	26	8.7%	13.7%
2	27	9%	22.7%
3	17	5.7%	28.4%
4	27	9%	37.4%
5	13	4.3%	41.7%
6	15	5%	46.7%
7	18	6%	52.7%
8	16	5.3%	58%
9	15	5%	63%
10	13	4.3%	67.3%
11	11	3.7%	71%
12	17	5.7%	76.7%
13	12	4%	80.7%
14	4	1.3%	82%
15	7	2.35%	84.35%
16	10	3.3%	87.65%
17	8	2.7%	90.35%
18	9	3%	93.25%
19	7	2.35%	95.7%
20	5	1.7%	97.4%
21	4	1.3%	98.7%
22	3	1%	99.7%
23	1	0.3%	100%
Total	300	100%	

#### Mother's Instruction and Occupation

3. 84% (252 out of 300) of the mothers surveyed reported that they could they had no formal education. 8% (24 out of 300) mother reported that they had attended primary school, but could not read. 5.7% (17 mothers) reported that they had attended primary school and could read. 7 mothers (2.3%) reported that they had either a secondary or higher level of education. In sum, 92% of mothers stated that they could not read.
4. 83.3% of mothers (250) reported that they were away from home during the day. The remaining 16.7% stayed close to the home during the day.
5. 6.3% (19 mothers) stated that they performed no income generating work. 93.7% (281 mothers) reported that they had an income generating activity. Of those activities the most important, one can cite the following in descending order of importance: 42.% (126 mothers) reported that they earn income from selling food products; 37.% (111 mothers) stated that they earn income from selling agricultural products; 14.33% (43 mothers) stated that they earned income from manual work; and 14.% (42 mothers) stated that they earn income from agricultural work. Only one mother stated that she that she earned a salary.
6. In response to the question about who took care of the child when the mother was not in the home, the survey found that: 53.7% of mothers (161 out of 300) reported that they took the child with them. For 124 mothers or 41.3% of cases, relatives and co-wives in polygamous families took care of the child when the mother was away from home. 4.0 % of mothers left their children with their husbands while 20.3% (61 mothers) left their children with older children. None of the mothers responded that they left their children with a maid servant or a nursery.

### **Breast-feeding/Nutrition**

7. and 8. Breast-feeding is a regular practice in the project area. 97.7% (293 mothers) reported that they were currently breast-feeding their children. Of the 7 mothers who were not breastfeeding their children, all mothers reported that they had breast-fed their children in the past. Of the 13 mothers in the survey with children 20-23 months of age, 11 mothers (84.6%) were still breast-feeding their youngest child.
9. 118 mothers (39.3%) reported that they had breast-fed their children within one hour after delivery. 68 mothers (22.7%) reported breast-feeding between one and eight hours after delivery. 111 mothers (37%) reported breast-feeding more than eight hours after delivery, and 3 mothers (1%) stated that they did not remember when they first breast-fed their children after delivery. In sum, 62% of mothers breastfed within the first 8 hours.
10. Of the children 0, 1, 2 and 3 months of age (85 children), 4.7% (4 out of 85 children) were being **exclusively breast-fed**; in other words, they were not being given any of the food/fluid categories listed in question 10 (10a-10i). 91.8% of mothers (78 out of 85 mothers) give water or teas in addition to mother's milk. 38.8% of these mothers (33 mothers) stated that they give semi-solid food to their children. 5.9% (5 mothers) of these mothers give artificial milk or cow milk to their children.

Of the children 6, 7, 8 and 9 months of age (64 children), 96.9% (62/64) had been introduced to solid or semisolid foods; in other words, they were being given at least one of the non-fluid categories listed in question 10 (10c - 10i).

**Table 2:**

Results of Question 10 for all mothers surveyed		
Response	Number Yes	Percentage Yes
a. Giving water or teas	293	97.65
b. Giving artificial milk	26	8.67
c. Giving porridge	230	76.6
d. Giving fruits (mangos, papaya, oranges, fruit juice)	160	53.3
e. Giving vitamin A foods (palm oil, mangos, orange sweet potatoes)	177	59
f. Giving iron foods (green leafy vegetables)	154	51.3
g. Giving protein meats (meat or fish)	164	54.66
h. Giving protein legumes (beans and peanuts)	174	58
i. Giving other sources of protein (eggs)	94	31.3
j. Adding iron foods (green leafy vegetables)	162	54
k. Adding Calorie rich foods (sugar or honey)	153	51
l. Adding calorie dense foods (oil or lard)	154	51.3

**11.** 21.3% (64 mothers) reported that they did not know actions which would stimulate breast milk production. 29.3% of mothers (88 mothers) stated that care of breasts or nipples was an action a mother could take to continue to breast-feed during the first four months of a child's life. 15.7% (47 mothers) stated that frequent sucking was an action a mother could do to continue to breast-feed. 4% (12 mothers) responded to this question with breast-feeding as soon as possible after delivery as an action to continue breast-feeding, 1% (3 mothers) responded with "relactation", and 5.3% (16 mothers) responded with "exclusive breast-feeding" as actions to take to continue to breast-feed during the first four months of life. Eight mothers (2.7%) stated that avoiding bottle feeding was an action a mother could take to keep on breast-feeding during the first four months of life. 189 out of the 300 mothers surveyed (63% of all mothers) responded with a response other than those stated as possible responses. Of these other responses, 119 mothers (63%) stated that the mother should eat well in order to stimulate breast milk production. Two of the 189 mothers responded that traditional medicinal teas would help stimulate milk production and one mother responded that rubbing yam leaves against the mothers nipples was a proper technique to stimulate milk production.

It should be noted that this question encountered difficulties in translation, which could have led to misunderstanding during the survey. Such confusion may explain why the number of "other" responses is so large.

**12.** When asked when a mother should start giving a child food in addition to breast milk, 48.7% (146 out of 300) mothers responded with an age between four and six months. Of all mothers, 19.7% an age earlier than four months and 24.7% (74 mothers) indicated an age of six months or later. 21 mothers (7%) stated that they did not know when. In sum, one-fifth of all mothers indicated an age earlier than four months and one quarter indicated an age later than six months. Thus, one half of all mothers surveyed did not know that they should give their children food in addition to breast milk between four and six months of age.

**13.** When asked what those additional foods to breast milk should be, 70% (210 of 300) responded with a food rich in iron and 46.3% (139 of 300) responded with a food rich in vitamin A. 22.3% (44 mothers) stated that a mother should add palm oil to the child's food. 8% (24 mothers) stated that they did not know what type of foods. 25.3% (76

mothers) responded with a category other than those listed in question 13. Among the other foods cited, many carbohydrate rich foods, such as cassava, corn, rice and pasta, were frequently mentioned.

### **Growth Monitoring**

14. 129 mothers (43% of 300) in the survey did not have a growth monitoring card for their child or had lost their child's growth monitoring card. 56.7% (171 mothers) were able to present a growth monitoring card for their child.
15. Of the 171 mothers who had growth monitoring cards, one-half or 51.5% (88 out of 171 mothers) had a card which indicated that they had been weighed at least once in the four months prior to the survey.

### **Diarrheal Disease**

16. All 300 mothers surveyed were asked whether their child had diarrhea during the 15 days prior to the survey. This question provides background information for next series of questions and allows the surveyor to obtain accurate information regarding treatment during and after the diarrhea episode. 31% (93 of 300) of the mothers surveyed stated that their child had diarrhea within the two weeks prior to the survey.
17. Of the 93 children with diarrhea during the two weeks prior to the survey, 91 (97.9%) were still being breast-fed. Of these 91 children, only 15% of mothers (14 mothers) gave more breast milk than usual to replace lost liquids. 44% (41 mothers) gave the same amount of breast milk as usual. 36.5% of mothers (34 out of 91) gave less than normal amount of breast milk and 2% (2 mothers) stopped completely during their child's diarrheal episode. In sum, 60.4% or 55 of 91 mothers of children who had diarrhea were giving breast milk more or the same amount as usual during the diarrhea episode.
18. Of the 93 children with diarrhea during the two weeks prior to the survey, 75 were being given fluids other than breast milk. Of these 75 children, 19 mothers (25.3%) gave more fluids than usual to replace lost fluids. 24 mothers (32%) gave the same amount of fluids as usual. The other 32 of the 75 mothers (42.7%) gave their child less fluids than usual or stopped giving their child fluids completely during the diarrhea episode. Thus, 43 mothers or 57.3% gave fluids other than breast milk more or the same amount as usual during the diarrhea episode. However, it is noteworthy that the MSPSCF considers only the practice of giving more liquids than usual as the correct practice in accordance with its national health message and therefore only the first response (more fluids than usual) should be considered the correct response.
19. Of the 93 children with diarrhea during the two weeks prior to the survey, 77 were being given solid or semisolid food. Of these 77 children, 47 children or 61% were given less foods than usual or had stopped completely. 30 mothers or 39% of mothers were giving more or the same amount of food as usual. In sum, 39% (30 of 77) adopted proper feeding practices during their child's diarrhea episode.
20. Of the 93 children with diarrhea during the two weeks prior to the survey, 20 children (21.5% of 93) were given oral rehydration salts. Of the mothers with children who had diarrhea, 7 mothers or 7.5% used sugar-salt solutions, and 32 mothers or 34.4% gave

their children teas. In sum, 52.7% of mothers gave at least one form of the Oral Rehydration Therapy, listed in question 20 as categories 20b-20e while 40.9% of mothers gave their child medicine (anti-diarrhetic and antibiotics) as treatment for their child's diarrhea. 8 of the 93 mothers (8.6%) did not give any treatment for their child's diarrhea. 25 out of the 93 mothers (26.9%) gave something other than the categories listed in question 20.

21. Of the 93 mothers of children with diarrhea during the two weeks prior to the survey, 62.4% (58 mothers) sought advice or treatment for their child's diarrhea and 37.6% of mothers did not seek treatment for their child's diarrhea.
22. Of the 58 mothers who sought advice or treatment for their children's diarrhea: 79% (40 mothers) went to their relatives or friends for treatment; 9 mothers (15.5%) went to a health clinic or social center, and one mother went to the hospital. Three mothers went to private clinics and 4 went to traditional healers .One mother also went to a pharmacy or medicine dispensary, and one mother went to a village health promoter. Five mothers indicated that they went to persons not listed under the possible responses.
23. All 300 mothers surveyed were asked the question about the signs or symptoms that would cause them to seek advice or treatment for their children's diarrhea. In sum, approximately one-third of mothers did not know any of the signs/symptoms of serious diarrhea. This question allows for multiple responses and the frequencies can be found in table 2 below:

**Table 3:**

23. What signs/symptoms would cause you to seek advice for your child's diarrhea?		
Possible Responses	Frequency	Percentage
a) Doesn't know	48	16%
b) Vomiting	43	14.3%
c) Fever	109	36.3%
d) Dry mouth, sunken eyes, decreased urine output	30	10%
e) Diarrhea of prolonged duration (at least 14 days)	90	30%
f) Blood in the stool	1	0.3%
g) Loss of appetite	23	7.7%
h) Weakness or tiredness	128	42.7%
i) Other	46	15.3%



24. Surveyors asked each of the 300 mothers what type of actions were the most important to take during their children's diarrhea. One-quarter of all mothers stated actions other than the proper practices (more fluids and giving fluids immediately) and a small portion did not know or stated incorrect practices. The different responses are summarized in the table 3 below.

**Table 4:**

24. What are important actions you should take if your child has diarrhea?		
Possible Responses	Frequency	Percentage
a) Doesn't know	38	12.7%
b) Initiate fluids rapidly	55	18.3%
c) Give the child more to drink than usual	24	8%
d) Give the child smaller and more frequent feeds	43	14.3%
e) Proper mixing and administration of ORS	95	31.7%
f) Take child to hospital/health center	98	32.7%
g) Feed more after the diarrhea so that the child can re-gain weight	20	6.7%
h) Withhold fluids	2	0.7%
i) Withhold foods	5	1.7%
j) Other	76	25.3%

25. All 300 mothers surveyed were asked about the most important actions a mother should take following her child's diarrhea. 125 mothers (41.7% of 300) responded with giving the child foods with high caloric content as an important actions to take when the child is recovering from diarrhea. 117 mothers (39%) responded to this question by indicating that giving the child smaller, more frequent feeds is an important action to take when the child is recovering from diarrhea. 57 mothers (19%) stated that giving more foods than usual is an important action. 52 mothers (17.3%) gave an answer other than the categories listed in question 25. Other responses given to this question included giving teas, salt-sugar solutions, and medicines, or going to the hospital. 55 mothers (18.3%) indicated that they did not know what actions they should take while their child is recovering from diarrhea.

### **Immunization**

26. 272 mothers (90.7% of 300) stated that their children have received at least one immunization. 28 of the 300 mothers (9.3%) stated that their child had not received any immunizations, and no mothers stated that they did not know.

#### **27. Presence of vaccination card or book for the child.**

260 mothers (86.7%) had an immunization card for their child. 19 mothers (6.3%) stated that they had lost their child's immunization card, and 21 (7%) stated that they never had a card for their child.

28. The immunization status for children 12-23 months of age is based on the immunization card or book actually seen by the interviewers. This verification according to documentation permits project staff to calculate vaccination coverage for the target project area. There are 87 children in the survey 12-23 months of age and of these children 76 or 87.4% had cards. The following are coverage figures for the for BCG,

DTP + Polio, and measles, which are vaccines against the most deadly childhood diseases:

**Table 5: BCG Status**

AGE GROUP	NO BCG	YES BCG	TOTAL
12-23 MONTHS	11 (12.6%)	76 (87.4%)	87 CHILDREN

**Table 6: DTP + Polio Status**

**DTP 1, 2, & 3 + Polio: children 12-23 months of age**

DTP 1 + Polio		DPT 1,2 + Polio		DPT 1,2,3 + Polio		Drop Out	
Freq. #	Percent %	Freq. #	Percent %	Freq. #	Percent %	Frequency #DTP1 - #DTP3	D.O. Rate #DTP1 - #DTP3 #DTP1 + Polio
76	87.4%	70	80.5%	60	69%	16	21%

**Table 7: Measles Status**

AGE GROUP	NO MEASLES	YES MEASLES	TOTAL
12-23 MONTHS	35 (40.2%)	52 (59.8%)	87 CHILDREN

**Table 8: Fully Immunized Status**

**(BCG + DTP123 + Polio 3 + Measles)**

AGE GROUP	NOT FULLY IMMUNIZED	FULLY IMMUNIZED	TOTAL
12-23 MONTHS	35 (40.2%)	52 (59.8%)	87 CHILDREN

29. This question asked about the mother's knowledge of when the vaccine against measles should be given. Only 65 mothers (21.7% of 300) stated that a child should receive their measles vaccine at the age of nine months. 235 mothers (78.3%) responded with incorrect ages or that they did not know.

30. 114 mothers (38% of 300) stated that the main reason why pregnant women need to be vaccinated with the tetanus toxoid (TT) vaccine is to protect both the mother and child. 14.3% (43 mothers) stated that the main reason for the TT vaccine was to protect the newborn infant against tetanus, and 6.3% (19 of 300) stated that the main reason was to protect the pregnant woman. 124 mothers (41.4%) stated that they did not know, or stated something other than the categories listed in question 30.

31. All 300 mothers were asked the question about mothers knowledge of the number of tetanus toxoid vaccinations a pregnant woman needed to protect the mother and newborn. 160 mothers (53.3%) stated that a pregnant woman needs more than two tetanus toxoid injections and 54 mothers (18%) stated that a pregnant woman needs two

TT injections.

In sum, 71.3% of mothers stated that a pregnant woman needs at least two TT injections to protect the mother and newborn infant from tetanus. 14 mothers (4.7%) stated that a pregnant woman only need one injection and 72 mothers or 24% stated they did not know how many TT injections a pregnant woman needs. In other words, 28.7% of all mothers did not know the correct number of TT injections a pregnant woman needed to protect the newborn against tetanus.

### **Maternal Care**

- 32.** Of all mothers, 247 mothers (82.3%) surveyed had maternal health cards and 53 (17.7%) reported never having a maternal health card or having lost it.

**33. Verification of tetanus toxoid (TT) vaccine according to the maternal health card.**

Of all mothers, 213 (71%) had at least two TT injections indicated, 13 mothers (4.3% of 247) had one TT injection indicated on the card, and 21 mothers (7%) had no TT injections indicated on the card.

- 34 and 35.** Of the 247 maternal health cards looked at by interviewers in the survey, 243 (98.4%) had a space to record ante-natal care visits; the other 4 cards did not have spaces to record ante-natal visits. Of the 243 maternal cards with spaces to record ante-natal visits, 229 (76.3% of the 300 mothers surveyed) indicated that the mother had made at least one ante-natal visit. The remaining 18 cards indicated that the mothers had made no ante-natal visits.

- 36.** When asked how soon after a woman knows she is pregnant should she see a health professional, 176 mothers (58.7% of 300) indicated a time period within the first trimester of pregnancy, 90 mothers (30%) indicated a time period within the second trimester, and 16 mothers (5.3%) indicated a time period within the third trimester. 18 mothers (6%) stated that they did not know when a pregnant woman should see a health professional. No mothers stated that it was not necessary to see a health professional.

**Table 9: Mothers' knowledge and practice related to antenatal care**

KNOWLEDGE			PRACTICE		
Response	Number	Percent	Response	Number	Percent
First Trimester Second Trimester Third Trimester	282	94%	At least one antenatal visit	229	76.3%
Does not know or no need to visit	18	6%	No antenatal visit + without cards or without space for recording visits	71**	23.7%

\*\*For purposes of analysis, the authors assume that a mother made no antenatal visits when she was without a antenatal card, or had a card which did not have a space for recording visits, or had no visits recorded.

37. When asked what foods are good for a woman to eat to prevent pregnancy anemia, 222 mothers (74%) indicated eggs, fish, meat, etc. (a protein food rich in iron) and 206 mothers (68.7%) indicated a green leafy vegetable (foods rich in iron). 67 mothers (22.3%) indicated a food other than the categories listed in question 37. 35 mothers (11.7%) stated that they did not know which foods would help prevent anemia.

### **Respiratory Illness**

The question **"Has the child had a cough, difficulty breathing, or a runny nose during the previous 15 days?"** was asked of all mothers surveyed in order to determine the background information for question 39. This question asks about the type of assistance sought by the mothers.

38. Of the 300 mothers surveyed, 177 mothers (59%) indicated that their child had a cold/respiratory illness in the 15 days prior to the survey.

39. This question was asked of mothers responding "yes" to question 38 to determine from whom they sought treatment for their children's cold/respiratory illness. Table 9 below shows the different responses given by the 177 mothers.

**Table 10: Results of Question 39**

39. From whom did you seek treatment for your child when ill with rapid and difficult breathing?		
Possible Responses	Frequency	Percentage
a) General hospital	11	6.2%
b) Health or social center	27	15.25%
c) Private clinic/doctor	2	1.1%
d) Village health promoter	7	3.95%
e) Traditional birth attendant	1	0.5%
f) Traditional healer	3	1.7%
g) Pharmacy/chemist/shop keeper	16	9%
h) Relatives/parents/friends	48	27.1%
i) Other	70	39.55%

40. The purpose of this question is to close the interview as well as obtain information about the type of medical assistance a mother may have received at birth. When asked who tied and cut the cord at the child's delivery, 68.7% (206 of 300) indicated a health professional (physician, nurse, or midwife). 38 mothers (12.7%) indicated a family member, 55 mothers (18.3%) indicated a traditional birth attendant. None of the mothers stated that she herself had tied and cut the cord. One mother indicated someone other than the categories listed in this question.

### **Synthesis of Results**

The KPC methodology allows for an analysis of the survey results using the key child survival indicators. These indicators are calculated by inserting the variables (results) for certain questions into the standard formulas.

The main indicators that will be presented here provide the baseline data for the community based FACS program. Moreover, CRS/Benin and MSPSCF will use these indicators to fix program objectives to be reached by the next KPC survey, which will be performed in the year 2001. Thus, the final KPC will evaluate the level of change that has occurred between baseline and final results, which will be considered a direct impact of the FACS program in these communities.

## **Principle Baseline Indicators from the 1997 KPC:**

### **A. Appropriate Infant Feeding Practices:**

- 1. Initiation of Breast-feeding:** Children for whom breast-feeding was initiated within the first 8 hours of life: **62%**
- 2. Exclusive Breast-feeding:** Infants less than 4 months who are being given only breast milk: **4.7%**
- 3. Introduction of first foods:** Infants between 6 and 10 months begin given solid or semi-solid foods: **96.9%**
- 4. Persistence of breast-feeding:** Children 20 to 23 months who are still being given breast milk: **84.6%**

### **B. Management of Diarrheal Diseases:**

- 5. Continued breast-feeding:** Children with diarrhea in past two weeks who were given the same amount or more of breast milk: **61.4%**
- 6. Continued Fluids:** Children with diarrhea in past two weeks who were given the same amount or more of fluids other than breast milk: **25.3%**
- 7. Continued food:** Children with diarrhea in past two weeks who were given the same amount or more food: **39%**
- 8. ORT usage:** Children with diarrhea in the last two weeks who were treated with ORT: **52.7%**

### **C. Immunization Coverage**

- 9. EPI Access:** Children 12-23 months who received DTP1 + Polio: **87.3%**
- 10. EPI coverage:** Children 12-23 months who received DTP3 + Polio: **69%**
- 11. Measles coverage:** Children 12-23 months with measles vaccine: **59.8%**
- 12. Drop-out rate:** Drop out rate between DTP1 and DTP3: **21%**  
Drop out rate between BCG and Measles: **31.6%**

### **D. Maternal Care (Maternal Health Card):**

- 13. Antenatal Visits:** Mothers who reported at least one antenatal visit during last pregnancy: **76.3%**
- 14. Tetanus Toxoid coverage:** Mothers who received two doses of Tetanus Toxoid vaccine: **71%**

**15. Attended births:**

Deliveries attended by skilled health personnel: **68.7%**

**E. Knowledge Indicators:**

**16. Time of measles vaccine:**  
**21.7%**

Mothers who know measles vaccine is given at 9 months:

**17. Tetanus Toxoid protection:**

Mothers who know that Tetanus Toxoid protects both the child and the mother: **38%**

**18. Time of antenatal care:**  
trimester: **58.7%**

Mothers who know that antenatal care should be by third

#### **IV. DISCUSSION AND RECOMMENDATIONS**

The KPC Survey is designed to provide project staff with qualitative information about particular problems in the project area. It also allows project staff to further refine key Child Survival messages at the beginning of a program. However, it should be noted that the KPC only provides a description of the project area and its problems, it does not always provide an explanation of the causes. For this, project staff must do further focused interviews with mothers and the community to understand their beliefs, customs, and other constraints that influence their knowledge and practices. This section will report on the Core Team's conclusions with regard to key problems in the project area. While the data raised many issues, an emphasis is purposely made to discuss only key problems revealed in the areas of intervention. In many cases, following the discussion, the report makes concrete recommendations for further refinement of messages and exploration of causes in particular areas.

##### **BREASTFEEDING**

Of the most important results revealed by the KPC are the poor exclusive breastfeeding practices among the project area's mothers. The report revealed that 4.7% of mothers with children aged 0,1,2 and 3 months were exclusively breastfed. The survey revealed that approximately half of all children in this age group were being given liquids--tea, water, and artificial milk--in addition to breastmilk. The 1996 DHS found similar results at the national level. The DHS found that only 14% of all children 0-3 months of age were exclusively breastfed and that 43.3% of children 0-3 months were being given liquids in addition to breastmilk.

The project needs to determine the precise obstacles and barriers to exclusive breastfeeding among the project women. In particular, focus groups can help understand why mothers and other care takers introduce water and other fluids so early. The background information on care takers reveals that slightly less than half of all mothers leave their children in some else's care while they are away from home. Of all mothers surveyed, 41.3% stated that they left the child with relatives and co-wives and 20.3% of mothers left their children with older children. The project needs to determine if the early introduction is being provided by someone other than the mother and target these individuals for messages. By determining the source for the early introduction of fluids, the project's education activities can make attempts to reach the other care givers to correct practices and messages on breastfeeding, making the messages behavior specific.

**Recommendation 1:** The project needs to focus on increasing exclusive breastfeeding of infants from birth to at least four months. Some investigation is necessary to determine the precise obstacles and barriers to exclusive breastfeeding. In order to make the recommended practices and messages specific, the project will need to conduct discussions to understand why water and teas are given so early to children.

Another important result of the survey is that 62 % of mothers initiated breastfeeding within the first 8 hours of life. This relatively good result is most likely due to earlier programs and the MSPSCF's emphasis on the need to breastfeed immediately after birth. Given that the official health message of the Direction of Family Health is the introduction of breastfeeding



within the first hour, the FACS program will look at why 61.7% are not following the MSPSCF's message. As a result of these discussions, recommendations will be formulated for attaining this level.

Until a woman's milk comes in at day 3 or 4, colostrum is by and far the best food for the newborn infant. The colostrum contains protective white blood cells capable of attacking harmful bacteria. Colostrum also provides the baby with high levels of antibodies from the mother. It is equally high in protein and low in sugar and fat, making it easy to digest. Furthermore, the colostrum is beneficial in that it stimulates the child's first bowel movement, thereby reducing the chance of jaundice.

The project will need to determine: 1) if the colostrum is being used or discarded, and 2) what the related practices and attitudes of both the health staff at deliveries, mothers, and other family members are about immediate breastfeeding.

Recommendation 2: The results on the initiation of breastfeeding are impressive; however, the project needs to focus on the actions of the other one-third to two-fifth of mothers who began breastfeeding later than 8 hours after birth. The project needs to focus on learning from these mothers the reasons why breastfeeding is not immediately begun after birth. Later results show that approximately one-third (32.3%) of all mothers were not assisted by a trained health professional at birth. It may be necessary to find out if the mothers giving birth at home are also the same mothers not immediately initiating breastfeeding. The project needs to look at the underlying reasons for an environment in which breastfeeding is not favored. It will be necessary for CHP to observe women after birth (at home and in maternities) and recommend appropriate practices immediately after birth. They can support the mother and give her advice when she needs it.

Discussions revealed that whether mothers breastfeed successfully or not depends partly on the attitude of other people in the community--fathers, grandmothers, relatives, friends, community leaders and others. Where people think that breastfeeding is a normal, healthy practice, mothers will most likely succeed. However, where people think that breastfeeding is old fashioned and difficult, or a nuisance, mothers will most likely fail. In these places, the project emphasis should be on learning about the local constraints--attitudes and beliefs--to exclusive breastfeeding and who holds these beliefs. In certain situations, it may be necessary for the program to target certain groups--unwed mothers, young or first mothers, etc.--in order to identify those groups with unhealthy practices.

Recommendation 3: Following further analysis at the level of the community attitudes, the project will form breastfeeding education groups according to children's ages.

### INFANT NUTRITION

The KPC survey revealed that a promising 96.9% of the children in the 6, 7, 8 and 9 month age group had been given solid or semisolid foods. However, this differs significantly from what mothers know about the timing of introducing foods between four and six months of age. Only 20% of mothers when asked about the age of the introduction of weaning foods, indicated an age earlier than four months. When compared to actual practice, one notes that main problem is the early introduction of foods by the group that knows the correct practice but for whatever reason does not follow it. The reasons may be related to who is caring for

the children or may be cultural. The late introduction of weaning foods does not seem to be a problem for the project areas. In sum, the biggest problems regarding nutritional practices are the lack of knowledge and practice of the early introduction of foods and fluids other than breast milk.

Recommendation 4: During the implementation of the FACS program, CRS/Benin and MSPSCF will place an emphasis on the training of CHPs to carry out further focus group discussions to determine why women are introducing foods so early on. It may be necessary to discuss with health officials and health promoters to determine what the previous messages on the introduction of weaning foods were. Then specific messages will be designed to discourage this practice and to encourage the proper nutrition of their children.

### GROWTH MONITORING

The KPC found that the approximately one-half (56.7%) of all mothers surveyed had growth monitoring cards and that of the mothers with cards, (51.5%) of those children had been weighed at least once in the four months prior to the survey. In other words, one-third of all children had been weighed in the last four months. This information shows that approximately half of all women are not participating in a growth monitoring 'system.' Moreover, it should be noted that the definition of growth monitoring used here, namely, once every four months, is a fairly open definition. The number of children being monitored on a more regular basis, such as once a month or once every two months, would be much lower if a stricter definition was used.

Group discussions revealed that the cause of this low rate of growth monitoring was due to at least three causes:

**-Access:** The centers where it is possible to weigh children are far from the mothers' households and the FACS communities. Women often have to travel 4 to 7 km. from their communities before they reach a Health or Social Center. Many of the FACS communities are also difficult to access during the rainy season which basically ensures their isolation.

**-Lack of Materials:** A number of centers where children would normally be weighed lack the necessary material (scales, weighing slips, cards, etc.). Similarly, the attitude of certain health agents is that it is not their role to weigh babies. The combination of these reasons ensures that any mother who wishes to weigh her baby must go to other structures than health centers to do so and thereby discourage this preventative (non-curative) activity.

**-Knowledge:** Mothers do not understand the importance of growth monitoring each month to see if the child has gained or lost weight, and to question the child's overall health as a result of growth monitoring.

Furthermore, the KPC also revealed that once the children are in the 'system' approximately one half 'drop-out' or abandon the activity. Women need to experience and teach each other about the benefits of growth monitoring.

Recommendation 5: The project should attempt to: a) determine how available GM services are in terms of locations, times, materials, and frequencies or sessions; b) train CHPs and focus training services on counselling and follow-up skills; and c) focus on how to make Growth Monitoring a more valuable experience for mothers. In particular, growth monitoring activities should be seen as opportunities for women to come together to discuss their health problems and exchange information as peers. Thus, growth monitoring groups can be

transformed into peer support groups.

Efforts also need to be made to determine if other members of the community have negative attitudes toward growth monitoring activities and attempt to associate them with educational campaigns. The advantage of the new program is that it brings growth monitoring into the communities so that long distances will no longer be an issue. During the FACS program, CRS/Benin will support and organize training of CHPs on growth monitoring techniques. The new program will also supply CHPs with baby scales, G cards, and other necessary materials for growth monitoring.

### DIARRHEAL DISEASES

Of all mother surveyed, 31% of children suffered from diarrhea during the 15 days prior to the survey. This number mirrors the national rate for the same age group (32.2%) as revealed by the DHS but is higher than the rate for children under three as revealed by the DHS for the Ouémé (17.2%).

An earlier question in the nutrition section revealed that approximately half of all mothers with children 0-3 months of age gave their children fluids in addition to breastmilk. The giving of foods and fluids other than breastmilk increase the risk of exposing the newborn infant to bacteria and other contaminants.

Recommendation 6: The project's education messages will need to make the connection between the introduction of food and fluids other than breastmilk and high risk for diarrhea. The project message should therefore be that the giving of food and liquids in addition to breastmilk for children 0-3 months of age causes diarrhea.

When asked their practices with regard to breastfeeding during diarrhea, 60% of mothers of children who had diarrhea in the 15 days prior to the survey stated that they gave "more or same amount" of breastmilk. While this is an encouraging result, it is necessary for the project to focus on the other 40% of mothers who give less or stop completely. When asked about their practice with regard to other fluids, a large portion (42.7%) stated that they gave less fluids or stopped completely which will combat this practice. The project must attempt to understand why these mothers (those giving less breastmilk and less fluids) do what they do in the hopes of developing situation specific messages.

Similarly, the survey found that 61% percent of children with diarrhea were being given less foods than usual or none at all. Once again, it is recommended that the project investigate further the reasons why more food is not being given and attempt to develop messages that target these actions.

Recommendation 7: With regard to diarrhea management, the KPC survey found that the top priority among the CRS/MSPSCF project should be the following messages which are consistent with the Facts for Life messages:

- 1) Give more fluids,
- 2) Give fluids immediately, and
- 3) Stop adding to breastmilk fluids/foods for children 0-3 months.

The KPC shows that a low percentage of mothers know that "blood in the stools" and "the signs of dehydration" are **danger signs** that the child needs care.

Recommendation 8: The project will need to focus on enabling the mothers to recognize these signs as signs of serious diarrhea which require immediate medical attention.

While the results of the ORT question is encouraging, a greater emphasis should be made on giving Oral Rehydration Salts as the preferred form of therapy. Oral Rehydration Salts are readily available through the national Orasel program and can be used by the project communities.

Recommendation 9: CHPs must be trained on appropriate, simple actions to be taken when a child becomes dehydrated during a diarrhea episode.

Recommendation 10: CHPs need to convince the project communities that treating diarrhea is something that the mothers can do themselves, without the use of medicines. The project's message will therefore be that medicines are not necessary for the treatment of diarrhea and, if necessary, only under medical supervision.

### IMMUNIZATIONS

The Expanded Programme on Immunization (EPI), which has been implemented in Benin since 1990, has obviously had a positive influence on immunization practices among different communities of the Ouémé Department.

The survey found that a large portion of mothers (90.7%) knew about immunizations and reported having had their child vaccinated at least once. The KPC survey found that 87% of 300 mothers had immunization cards for their children and of those with cards, all children had the first immunizations--BCG and DTP1. The project needs to investigate if the 13% of mothers who did not have cards, ever got into the 'system' and, if many did not, how they can be brought into the system in the future. In the surveyed population, the drop-out rates or difference between the first and third DTP is 21% and between the DTP1 and Measles vaccine is 31.6%. Moreover, the rate for BCG is high which indicates that access to vaccinations is not a problem.

Antigen-specific immunization coverage rates for the 12-23 month age group are: BCG--87.4%, DPT123 + Polio 123--69%, and Measles--59.8%. These percentages represent population based coverage rates for the surveyed children, as recorded on the immunization card. The rate of children fully immunized (BCG + DPT123 + Polio 3 + Measles) in the FACS baseline survey (59.8%) mirrors the 70.8% departmental EPI coverage and the 56% national coverage rates taken from the 1996 DHS. The CRS/MSPSCF revised project objective is for 80% of children in the project area to be fully immunized by 12 months. These rates reveal that the limiting factor in ensuring that children in the 'system' complete the schedule is the measles vaccine.

Moreover, it will be necessary to determine the precise causes for the drop-out rates. MSPSCF may need to look at whether a supply problem occurred during the last two years that would explain the low rates for later vaccines--DTP 3 and Measles. The survey found that 65% of mothers did not know that the measles vaccine was given at 9 months. As part of the

project management, CRS/MSPSCF will work in collaboration with project communities and public health institutions in the project area to provide routine follow-up of children's immunization schedule, especially for measles and DTP3. Also, CRS/MSPSCF will train CHPs to counsel mothers and reinforce messages about the importance of completing the EPI schedule during the child's first year of life.

Recommendation 11: The project will need to place an emphasis on ensuring that children are given the measles vaccines (access) and that mothers know at what age the vaccine is given (knowledge) since these are the limiting factors in complete vaccination coverage.

Recommendation 12: The Beninese Government should continue its Expanded Programme on Immunization (EPI) by giving health agents necessary materials to reach isolated communities. CHPs will be trained to assist health agents to regularly follow-up the children's vaccination schedule and provide referral to children that need vaccinations.

Overall knowledge of mothers about the timing and purpose of immunizations is mixed. 65% of mothers did not know that the measles vaccine was given at 9 months, whereas 71.3% of mothers knew that a pregnant woman needs at least two tetanus toxoid vaccines to protect mother and child. However, only 38% of mothers were able to correctly answer why a pregnant woman needed two doses. These seemingly contradictory results reinforce the conclusion that once people are in the 'system', they receive the necessary services. Therefore, CRS/MSPSCF will continue to increase access through coordination with local health officials.

### MATERNAL CARE

An impressive number of mothers surveyed (82.3%) had access to maternal health care as evidenced by the possession of cards. Of those mothers with cards, more than two thirds (71%) had received at least two TT injections, and 4.3% had received at least one TT injection. 94% of mothers with cards had spaces to record ante-natal visits. Of those with such spaces, 94.2% had made at least one ante-natal visit. Possession of maternal cards appears to be a good indicator of access to ante-natal care. The most important issue for maternal care is "access" to health care for the small portion of mothers who do not get health cards. The survey showed that once they had health cards they tended to obtain at least one ante-natal visit and one TT injection.

Mothers' knowledge of appropriate maternal nutrition practices is high. More than two-thirds of mothers knew that foods rich in iron were good for a woman to eat during pregnancy. CRS/MSPSCF will continue to promote appropriate maternal nutrition in its educational messages.

It should be noted that while over 90% of mothers reported having visited a health site for ante-natal care, only 68.7% were assisted by a trained health professional during the birth of their youngest child. The KPC Survey found that 6% of mothers surveyed deliver without having had any prenatal visits and that 24% give birth without the assistance of qualified medical personnel. This suggests that maternal health care could be improved by ensuring that families plan for the birth (who will deliver and who will be present) and that they seek the assistance of a trained health professional during birth. Moreover, this result shows the importance of linking community health activities with both public and private health institutions so as to ensure adequate follow-up.

Recommendation 13: The CRS/MSPSCF program will need to focus on ensuring that all women get into the ante-natal health care system. It will be necessary to facilitate communication between local health structures and project communities through the CHPs and Village Health Committees.

### AGE DISTRIBUTION

The survey's results show that 1.3% of mothers were less than 18 years of age and that 10.4% of the mothers surveyed were over the age of 35 years. The book Facts for Life published by UNICEF, WHO, and UNESCO states that the risks of child-bearing are greatest when the mother to be is under 18 years or over 35.

The survey found that approximately two-thirds of children surveyed were below the age of one year. This was because interviewers were instructed to complete the survey on the youngest child under two years of age in the household.

### MOTHER'S EDUCATION

A large portion, over 92%, of the mothers surveyed were unable to read. This result is consistent with UNICEF's report The State of the World's Children: 1997, which showed that 84% of Beninese women could not read.

Recommendation 14: Given the fact that the vast majority of targeted beneficiaries are illiterate, CRS/MSPSCF will need to adopt non-written means for communicating its key health messages. In particular, it will be necessary to develop and distribute new educational materials that use pictorial diagrams to help reinforce messages given during health animation sessions.

### MOTHER'S OCCUPATION

Over 80% of the mothers are away from home during the day. Many of these mothers (41.3%) leave their children with relatives during the mother's absence and one-fifth (20.3%) leave them with older children.

The value of this information is that it provides us with additional information about:

- the best times for organizing IEC;
- the best time for CHPs to visit women in their homes; and
- the groups of people who should be targeted with health education messages given the importance of other family members in the raising of children.

Recommendation 15: In order for health messages to reach relatives and older siblings, efforts should be made to associate other members of the family and community with project activities and education sessions. The project will also organize educational activities in the evenings and early mornings to accommodate women's schedules. The Beninese government should introduce into the school curriculum key hygiene and child survival themes, which may have a positive effect on actual practices within the household by reinforcing appropriate

practices.

**V. REVISED OBJECTIVES FOR FACS PROGRAM (OUEME DEPARTMENT)  
FOR 2001**

**A. Breast-feeding**

**Practice:**

- 1. 39.3 % of mothers began breastfeeding within the first eight hours after birth**

**Objective:** 50% of mothers will have begun breastfeeding within the first hour after birth.

- 2. 4.7% of mothers exclusively breastfed their infants aged 0 to 3 months**

**Objective:** 20% of children aged 0 to 3 months of age will be exclusively breastfed.

**Knowledge**

- 3. 15.7% of mothers know that they should breastfeed their child frequently to stimulate the production of breast milk.**

**Objective:** 50% of mothers will know that they should breastfeed their child frequently to stimulate the production of breast milk.

**B. Growth monitoring and Infant Nutrition**

**Practice**

- 4. 29% of all children had growth monitoring cards and 56% of the children who had growth monitoring cards had been weighed in the past four months prior to the survey.**

**Objective:** 80% of the mothers will have growth monitoring cards for their children and these children will have been weighed in the past four months prior to the survey.

**Knowledge**

- 5. 48.7% of mothers know that they should introduce weaning foods in addition to breast milk between 4 and 6 months of age.**

**Objective:** 80% of mothers will know that they should introduce weaning foods in addition to breast milk between 4 and 6 months of age.



Practice:

- 6. 24% of mothers give their children foods rich in vitamin A, iron, and calories.**

Objective: 40% of mothers will give their children food rich in vitamin A, iron, and calories.

- 7. 51.3% of mothers give green leafy vegetables to their children.**

Objective: 70% of mothers will give green leafy vegetables to their children.

**C. Management of Diarrheal Diseases**

Practice:

- 8. 39% of mothers give their non-exclusively breastfed children solid and/or semi-solid foods during a diarrhea episode.**

Objective: 60% of mothers will give their non-exclusively breastfed children solid and/or semi-solid foods during a diarrhea episode.

- 9. 52.7% of mothers give their child some form of ORT during a diarrhea episode.**

Objective: 80% of mothers practice will administer some form of ORT during their children's diarrhea episode(s).

- 10. 25.3% of mothers gave more fluids to their non-exclusively breastfed child during a diarrhea episode.**

Objective: 40% of mothers practice will give more fluids to their non-exclusively breastfed child during a diarrhea episode.

**D. Vaccinations**

Vaccination Coverage:

- 11. The vaccination coverage for children aged 12 to 23 months in the survey found that:**

**87.3% had BCG**  
**69% had DTP3 + Polio**  
**59.8% had the vaccine against the measles**

Objective: 80% of all children will be completely vaccinated (BCG + DTP3 + Polio + Measles Vaccine).

*Knowledge:*

- 12. 38% of mothers know that the tetanus vaccine protects both mother and newborn against tetanus toxoid.**

*Objective:* 60% of mothers will know that the vaccination against tetanus toxoid protects both mother and child.

- 13. 71.3% of mothers know that a pregnant woman needs at least two TT injections in order to protect the newborn against tetanus toxoid.**

*Objective:* 80% of mothers will know that a pregnant woman needs at least two TT injections to protect the newborn against tetanus toxoid.

- 14. 21.7% of mothers know that their children need to be vaccinated against measles at the age of 9 months.**

*Objective:* 60% of mothers will know that their children need to be vaccinated against measles at the age of 9 months.

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**ANNEX A: Survey Questionnaire in English**

**Knowledge, Practice & Coverage (KPC) Questionnaire**

**All questions are to be addressed to the mother with a child under two (less than 24 months of age)**

Interview date	___/___/9_	Reschedule interview	___/___/9_
	(dd/mm/yy)		(dd/mm/yy)
Interviewer name	_____		
Supervisor name	_____		
MCH Center	_____		
Village/Community	_____		
Neighborhood	_____		

1 Name and age of the mother

Name \_\_\_\_\_ Age(years)\_\_\_\_\_

2 Name and age of the child less than 24 months of age

Name \_\_\_\_\_

Birth date \_\_\_/\_\_\_/\_\_\_ (dd/mm/yy)

Age in  
months\_\_\_\_\_

**Mother's Education/Occupation**

What was the highest educational level you attained?

- |   |                                 |     |
|---|---------------------------------|-----|
| 3 | 1. none                         | [ ] |
| · | 2. primary <b>does not</b> read | [ ] |
|   | 3. primary reads                | [ ] |
|   | 4. secondary & higher           | [ ] |

Do you work away from home?

- |   |        |     |
|---|--------|-----|
| 4 | 1. yes | [ ] |
| · |        |     |
|   | 2. no  | [ ] |

5. Do you do any "income generating work"?

**(multiple answers possible; record all answers)**

- |    |                                |     |
|----|--------------------------------|-----|
| a. | nothing                        | [ ] |
| b. | handicraft, weaving, rugs, etc | [ ] |
| c. | harvesting, fruit picker       | [ ] |

- d. selling agricultural products ☐
- e. selling foods, dairy products ☐ [ ]f . servant/household services[ ]
- g . shopkeeper, street vendor ☐
- h. salaried worker ☐
- i. other (specify) \_\_\_\_\_ ☐

6. Who takes care of **(name of child)** while you are away from home?  
**(multiple answers possible; record each one)**

- a. mother takes child with her ☐
- b. husband/partner ☐
- c. older children ☐
- d. relatives ☐
- e. neighbors/friends ☐
- f. maid ☐
- g. nursery school ☐

### **Breastfeeding/Nutrition**

7. Are you breastfeeding **(name of child)**?

1. yes. .... [ ]--> **go to 10**
2. no. .... [ ]

8. Have you ever breast-fed **(name of child)**?

1. yes. .... [ ]
2. no. .... [ ]-> **go to 11**

9. After delivery, when did you breastfeed **(name of child)** for the first time?

1. during the first hour after delivery ☐
2. from 1 to 8 hours after delivery ☐
3. more than 8 hours after delivery ☐
4. do not remember ☐

10 a. Are you giving **(name of child)** water (or herbal teas)?

1. yes ☐
2. no ☐
3. doesn't know ☐

b. Are you giving **(name of child)** artificial milk?

1. yes

☐

2. no

☐

3. doesn't know

☐

- c. Are you giving **(name of child)** porridge?
1. yes [ ]
2. no [ ]
3. doesn't know [ ]

- d. Are you giving **(name of child)** fruits?
1. yes . . . . . [ ]
2. no . . . . . [ ]
3. doesn't know. . . . . [ ]

If yes, what type of fruits? **(If these fruits are yellow or red, mark "yes" for question 10.d. and 10.e. If the answer to question 10.d. is "no" or "doesn't know", ask question 10.e.)**

- e. Are you giving **(name of child)** palm oil, orange sweet potatoes, mango or papaya? **(If the mother cited yellow fruits in response to question 10.d, mark "yes" to question 10.e.)**
1. yes [ ]
2. no [ ]
3. doesn't know [ ]

- f. Are you giving **(name of child)** dark green leafy vegetables, such as spinach?
1. yes [ ]
2. no [ ]
3. doesn't know [ ]

- j. Are you adding dark green leafy vegetables, such as spinach, to **(name of child)**'s food?
1. yes [ ]
2. no [ ]
3. doesn't know [ ]

- g. Are you giving **(name of child)** meat or fish?
1. yes [ ]
2. no [ ]
3. doesn't know [ ]

- h. Are you giving **(name of child)** lentils, peanuts, or beans?
1. yes

2. no

[]

3. doesn't know

[]

[]



- l. Are you giving **(name of child)** eggs?
1. yes []
2. no []
3. doesn't know []
- k. Are you adding honey or sugar to **(name of child)**'s meals?
1. yes []
2. no []
3. doesn't know []
- l. Are you adding fat (lard) or oil to **(name of child)**'s meals?
1. yes []
2. no []
3. doesn't know []
11. Let's discuss breastfeeding again. What can a mother do in the baby's first four months of life to keep on breastfeeding? **(multiple answers possible; record all answers)**
- a. doesn't know []
- b. breastfeed as soon as possible after delivery (don't discard colostrum) []
- c. care of breasts, nipples []
- d. frequent sucking to stimulate production []
- e. exclusive breastfeeding during the first 4 months []
- f. avoid bottle feeding of baby []
- g. relactation (if she had to stop, mother can resume breastfeeding again) []
- h. other (specify) \_\_\_\_\_ []
12. When should a mother start adding foods to breastfeeding?
1. start adding between 4 and 6 months []
2. start adding earlier than 4 months []
3. start adding 6 months or later []
4. doesn't know []
13. What should those additional foods to breastfeeding be? **(multiple answers possible; record all answers)**
- a. doesn't know []

- |                                |                          |
|--------------------------------|--------------------------|
| b. add oil to food             | <input type="checkbox"/> |
| c. give food rich in Vitamin A | <input type="checkbox"/> |
| d. give food rich in iron      | <input type="checkbox"/> |
| e. other (specify) _____       | <input type="checkbox"/> |

### Growth Monitoring

14. Does **(name of child)** have a growth monitoring card?

- 1. yes. . . . . ☐ **(must see card)**
- 2. lost card. . . . . ☐ ---> **go to 16**
- 3. no. . . . . ☐ ---> **go to 16**

15.

Look at the growth monitoring card of the child, and record the following information: has the child been weighed in the last four months?

- 1. yes ☐
- 2. no ☐

### Diarrheal Diseases

16. Has **(name of child)** had diarrhea during the last two weeks?

- 1. yes. . . . . ☐
- 2. no. . . . . ☐ ---> **go to 23**
- 3. doesn't know . . . . . ☐ ---> **go to 23**

17. During **(name of child)'s** diarrhea did you breast-feed..

**(read choices 1-4 to the mother)**

- 1. more than usual? ☐
- 2. same as usual? ☐
- 3. less than usual? ☐
- 4. stopped completely? ☐
- 5. child not breastfed ☐

18. During **(name of child)'s** diarrhea, did you provide **(name of child)** with fluids other than breast-milk... **(read choices 1-4 to the mother)**

- 1. more than usual? ☐
- 2. same as usual? ☐
- 3. less than usual? ☐
- 4. stopped completely? ☐
- 5. exclusively breastfeeding ☐

19. During **(name of child)'s** diarrhea, did you continue to provide **(name of child)** with solid/semisolid foods **(read choices 1-4 to the mother)**

- 1. more than usual? ☐
- 2. same as usual? ☐
- 3. less than usual? ☐
- 4. stopped completely? ☐
- 5. exclusively breastfeeding ☐

20. When **(name of child)** had diarrhea, what treatments, if any, did you use? **(multiple answers possible; record all answers)**

- a. nothing ☐
- b. ORS sachet ☐
- c. sugar-salt solution/health drink ☐
- d. cereal based ORT ☐
- e. infusions or other fluids ☐
- f. anti-diarrhea medicine or antibiotics ☐
- g. other specify \_\_\_\_\_ ☐

21. When **(name of child)** had diarrhea, did you seek advice/treatment?

- 1. yes. .... ☐
- 2. no. .... ☐ ---> **go to 23**

22. From whom did you seek advice or treatment for the diarrhea of **(name of child)**? **(multiple answers possible; record each answer)**

- a. general hospital ☐
- b. health center/clinic/post ☐
- c. private clinic/doctor ☐
- d. pharmacy ☐
- e. village health worker ..... ☐
- f. traditional healer ☐
- g. traditional birth attendant ☐
- h. relatives & friends ☐
- i. other (specify) \_\_\_\_\_ ☐

23. What signs/symptoms would cause you to seek advice or treatment for **(name of the child)'s** diarrhea?

**(multiple answers possible; record all answers)**

- a. doesn't know [ ]
- b. vomiting [ ]
- c. fever [ ]
- d. dry mouth, sunken eyes, decreased urine output, sunken fontanelle (dehydration) [ ]
- e. diarrhea of prolonged duration (at least 14 days) [ ]
- f. blood in stool [ ]
- g. loss of appetite [ ]
- h. weakness or tiredness [ ]
- i. other (specify) \_\_\_\_\_ [ ]

24. What are important actions you should take if **(name of child)** has diarrhea?  
**(multiple answers possible; record all answers)**

- a. doesn't know [ ]
- b. initiate fluids rapidly [ ]
- c. give the child more to drink than usual [ ]
- d. give the child smaller more frequent feeds [ ]
- e. proper mixing and administration of ORS [ ]
- f. take child to the hospital/health center [ ]
- g. feed more after diarrhea episode so that child can re-gain weight [ ]
- h. withhold fluids [ ]
- i. withhold foods [ ]
- j. other (specify) \_\_\_\_\_ [ ]

25. What are important actions a mother should take when a child is recovering from diarrhea?

**(multiple answers possible; record all answers)**

- a. doesn't know [ ]
- b. give the child smaller more frequent feeds [ ]
- c. more foods than usual [ ]
- d. give foods with high caloric content [ ]
- e. other (specify) \_\_\_\_\_ [ ]

### **Immunizations**

26. Has **(name of child)** ever received any immunizations?

- 1. yes [ ]
- 2. no [ ]
- 3. doesn't know [ ]

27. Do you have an immunization card for **(name of child)**?

- 1. yes [ ] (must see card)
- 2. lost it [ ] ----> go to 29

3. never had one

[ ] -----> go to 29

28. Look at the immunization card, and indicate the dates for the following vaccinations in the following spaces provided:

BCG \_ \_ / \_ \_ / \_ \_

DTP + Polio                      1st \_ \_ / \_ \_ / \_ \_  
    2nd \_ \_ / \_ \_ / \_ \_  
    3rd \_ \_ / \_ \_ / \_ \_

Measles                              \_ \_ / \_ \_ / \_ \_

29. At what age should **(name of child)** receive measles vaccine?

1. specify in months

[ \_ / \_ ]

2. doesn't know

(99) [ ]

30. Can you tell me the main reason why pregnant women need to be vaccinated with tetanus toxoid vaccine?

1. to protect both mother/newborn against tetanus

[ ]

2. to protect **only** the woman against tetanus

[ ]

3. to protect **only** the newborn against tetanus

[ ]

4. doesn't know or other

[ ]

31. How many tetanus toxoid injections does a pregnant woman need to protect the newborn infant from tetanus?

1. one

[ ]

2. two

[ ]

3. more than two

[ ]

4. none

[ ]

5. doesn't know/more than five

[ ]

### Maternal Care

32. Do you have a maternal health card?
- |            |                     |
|------------|---------------------|
| 1. yes     | [ ] (must see card) |
| 2. lost it | [ ] ---> go to 36   |
| 3. no      | [ ] ---> go to 36   |

3	Look at the maternal health card and record the	
3	number of TT vaccinations in the space below:	
.	1. one	[ ]
.	2. two or more	[ ]
.	3. none	[ ]

3	Does the card have space to record ante-natal care	
4	visits?	
.	1. yes	[ ]
.	2. no	[ ]

3	If, yes, record whether the mother ever made any ante-natal visit?	
5	1. yes	[ ]
.	2. no	[ ]

- |   |  |     |
|---|--|-----|
| 3 | When should a pregnant woman first see a health professional |     |
| 6 | (physician, nurse, midwife) <b>(probe for months)</b>        |     |
| . | 1. first trimester, 1-3 months                               | [ ] |
| . | 2. middle of pregnancy, 4-6 months                           | [ ] |
| . | 3. last trimester, 7-9 months                                | [ ] |
| . | 4. no need to see health worker                              | [ ] |
| . | 5. doesn't know  | [ ] |

37. What foods are good for a pregnant woman to eat to prevent pregnancy anemia?

**(multiple answers possible; record all answers)**

- |   |     |
|---|-----|
| a. doesn't know                             | [ ] |
| b. proteins rich in iron (eggs, fish, meat) | [ ] |
| c. leafy green vegetables, rich in iron     | [ ] |
| d. other (specify) _____                    | [ ] |

38. Has **(name of child)** been ill with cough or difficult breathing in the last two weeks?
1. yes. .... ☐
  2. no. .... ☐---> **go to 40**
  3. doesn't know. . . . . ☐---> **go to 40**
39. From whom did you seek treatment for **(name of child)** when ill with rapid and difficult breathing? **(multiple answers possible; record all answers)**
- a. general hospital ☐
  - b. health center/social center ☐
  - c. private clinic/doctor ☐
  - d. village health worker ☐
  - e. traditional birth attendant ☐
  - f. traditional healer ☐
  - g. pharmacy/chemist/shop keeper ☐
  - h. relatives & friends ☐
  - i. other (specify) ☐
40. At the delivery of **(name of child)**, who tied and cut the cord?
1. yourself ☐
  2. family member ☐
  3. traditional birth attendant ☐
  4. health professional(physician,nurse or midwife) ☐
  5. other (specify) \_\_\_\_\_ ☐
  6. doesn't know ☐